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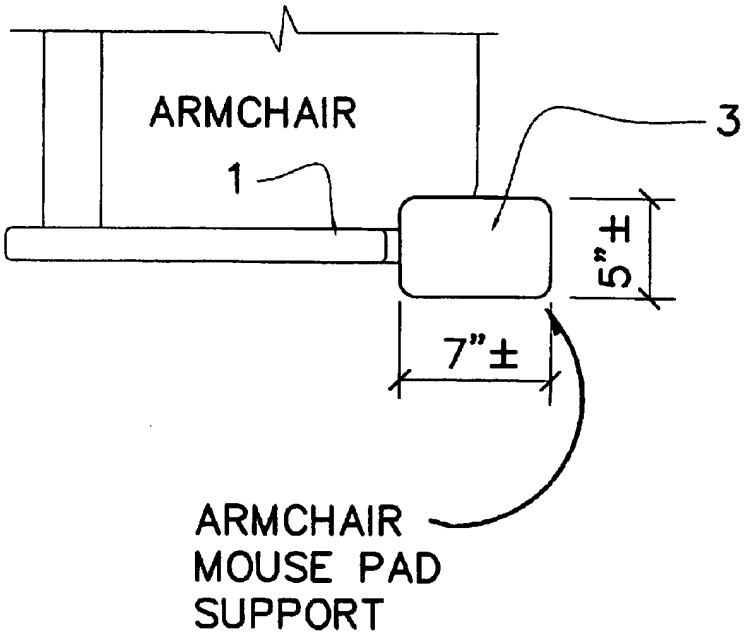
(54) Titre : TAPIS DE SOURIS POUR BRAS DE FAUTEUIL DE BUREAU
(54) Title: ARM CHAIR COMPUTER MOUSE PAD



(57) Abrégé/Abstract:
This invention improves the operation of a computer mouse (or input device) while sitting in an armchair, executive or secretary/computer type office chair. The invention attaches to the support of an armrest on an armchair and extends forward and up to a level surface where a computer mouse (or input device) and or pad for such devices can be placed. The device allows for adjustment & then locking the device in place in all axis (x, y, z or pitch, yoke and yaw). It also allows for the adjustment (& locking in place) of the level surface in terms of distance from the armrest of an armchair. Thus a stable and ergonomically correct working position, which can be easily customized to an individuals preferences, can be achieved for the operation of a computer mouse or input device, which is easily removable, simple to operate, rigid and durable, inexpensive to fabricate and assemble from readily available components and materials. The attachments methods contemplated, for the device to an armchair, the number and methods of pivot points contemplated, and the components contemplated ensure that the device can be easily and inexpensively sourced, fabricated, assembled, shipped, opened ready to be applied to most armchairs on either the left or right arms, adjusted, secured in a stable position free from play, and ready to use.

Specifications:

The present invention relates to a stable support for mounting a computer mouse pad or input device on an armchair, which can be adjusted to fit most armchairs so that the mouse pad or input device is at a desired level and position in front of an existing arm rest of an arm chair, which is determined by the user, and which can be easily mounted and when not in use can be easily demounted and or folded into a more compact position.

Computer mouse pads and or input devices of various types are known as is clear from U.S. Patents 6,027,165 (Adkins); 5,848,773 (Bourassa); 5,606,917 (Cauffel); and Canadian Patent 2,147,138 (O'Brien). The pertinent prior inventions have generally involved attaching devices above an existing armrest, thus eliminating the function of the armrest, or duplicating it. Prior devices have complicated attachments to the bottom of a chair or to the undersides of the seat.

An object of another aspect of this invention to provide a stable support for mounting a computer mouse pad or an input device on the support for an armrest on an armchair at an adjustable distance in front of an existing armrest of the armchair is that it can be easily and inexpensively sourced, fabricated, assembled, shipped, opened ready to be applied to most armchairs on either the left or right arms, adjusted, secured in a stable position free from play, and ready to use.

An object of another aspect of this invention to provide a stable support for mounting a computer mouse pad or an input device on the support for an armrest on an armchair at an adjustable distance in front of an existing armrest of the armchair is that it can take advantage of various public domain methods of adjustments and locking mechanisms related to pivoting, spring assisted pivoting and clamping (of device to armrest and of pivot points), lever actuated locking mechanisms, and infinite movement "snake" type components.

A further object of another aspect of this invention is to provide a stable support for mounting a computer mouse pad or an input device on the support for an armrest on an armchair at an adjustable distance in front of an existing armrest of the armchair that has a mounting device to a support of the armrest on the arm chair which can be customized and/or ordered to suit by Original Equipment

Manufacturer's to suit their Hardware requirements.

A still further object of this invention is to provide a stable support for mounting a computer mouse pad or an input device on a support for an armrest on an armchair at an adjustable distance in front of an existing armrest of the armchair that has a mounting device to the base of a mouse pad or input device which can be customized and/or ordered to suit by Original Equipment Manufacturer's to suit their Hardware requirements.

A still further object of this invention is to provide a stable support for mounting a computer mouse pan or an input device on a support for an armrest on an armchair at an adjustable distance in front of an existing armrest of the armchair that has a mounting device to a support of the arm of the arm chair and a mounting device to the base of a mouse pad or input device, which both can be customized and/or ordered to suit by Original Equipment Manufacturer's to suit their Hardware requirements.

A still further object of this invention is to improve the design of a computer mouse pad by reducing the overall size of the pad, incorporating a non-patented wrist support method, and raising the edges of the pad to contain the mouse and prevent it from falling off of the pad when the chair is moved or bumped.

A still further object of this invention is to provide a stable support for mounting a computer mouse or input device on an armchair at an adjustable distance in front of an existing armrest of the arm chair which when the computer mouse pad or input device is adjusted and locked into place can then be easily unlocked and folded down and out of the way while still remaining attached to a support of an arm on the arm chair.

Referring to the drawings PLAN Figure 1 and ELEVATION Figure 2 a typical executive office chair and to drawing ELEVATION Figure 3 a typical "office" arm chair are shown according to one embodiment of an aspect of the invention. They both comprise of an armrest portion 1 and its corresponding support portion 2. This invention utilizes these portions 1 and 2 to place a computer mouse pad or an input device at an adjustable distance in front of an existing armrest 1 on the armchair. Figure 1 depicts the size of the mouse pad

according to one embodiment of an aspect of the invention.

As is clear from Figures 1 to 3, the user attaches the invention to the support of an armrest on the armchair by employing the clamping device 6 of the invention on the armrest support of the armchair. The pivot axis a, b and c form a single plane on which the members 3, 4 and 5 can rotate upon their crossing points. While the distance between the crossing point of axis c and b to the support of an arm rest on the armchair remains constant, the distance between the crossing point of axis c and b to the crossing point of axis b and a can be varied. Further the position of the computer mouse pad or input device, member 3, can be varied along axis a.

Thus, the user sitting in the chair can easily attach the invention to an armrest support of the armchair and then position the computer mouse pad or input device in front of the armrest suitable for correct ergonomic operation of the computer mouse pad or input device.

Once the computer mouse pad or input device is at the desired position the device can be locked in place by tightening the knobs 7 and 8. Furthermore once the device is attached to a support of an armrest it can easily be folded into a more compact position by loosening the knobs 7 and 8.

A further adjustment of the device can be made once it is locked in position by loosening the clamping device 6 and rotating the device around axis c.

Preferably, the ideal embodiment of this invention would have a minimum of components, and a single easy to operate mechanism (used singularly or in combination) to attach, adjust and lock/unlock the device to the armchair in the desired configuration. Furthermore the ideal embodiment of the invention would have pivot points and/or components that are spring loaded so that when the device is attached to a support of an armrest on an armchair it can be in a raised and level position where the user sitting in the armchair can then easily place or install their computer mouse or input device and rest their arm, wrist and hand in a natural position thus pushing the device down and/or forward into the desired position. And furthermore the ideal embodiment of the invention would accommodate the latest improvements in computer mouse pads and input devices.

Claims:

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. This invention improves the operation of a computer mouse while seated by providing for an adjustable mouse pad, or computer input device, support apparatus that attaches to the support of an armrest on an armchair comprising of a mechanism for clamping the apparatus to the support of an armrest on an armchair. Component members attached to each other by means of single pivot points or sliding channels that have bolted connections with knobs or clamps that tighten to lock the components in the desired configuration to support a mouse pad or computer input device.
2. An apparatus as defined in claim 1 achieves this by eliminating the need to reach for the mouse (or other input device) that might be located elsewhere, by positioning the mouse pad or input device directly in front of an armrest on an armchair.
3. An apparatus as defined in claim 2 also achieves this by using the armrest support on the armchair to make the position of the mouse (or other input device) more comfortable, natural and unique to any other device, by positioning the mouse pad or input device directly in front of an armrest on an armchair.
4. An apparatus as defined in claim 3 also achieves this by improving use of a wireless mouse (or other input device) by allowing for and improving the free movement of office chairs on moveable bases, by positioning the mouse pad or input device directly in front of an armrest on an armchair.
5. An apparatus as defined in claim 4, which also provides a level and stable surface for the placement of computer mouse pad or input device on most armchairs which is superior to other devices which have been patented or are currently available in the market place.

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March 13, 2001

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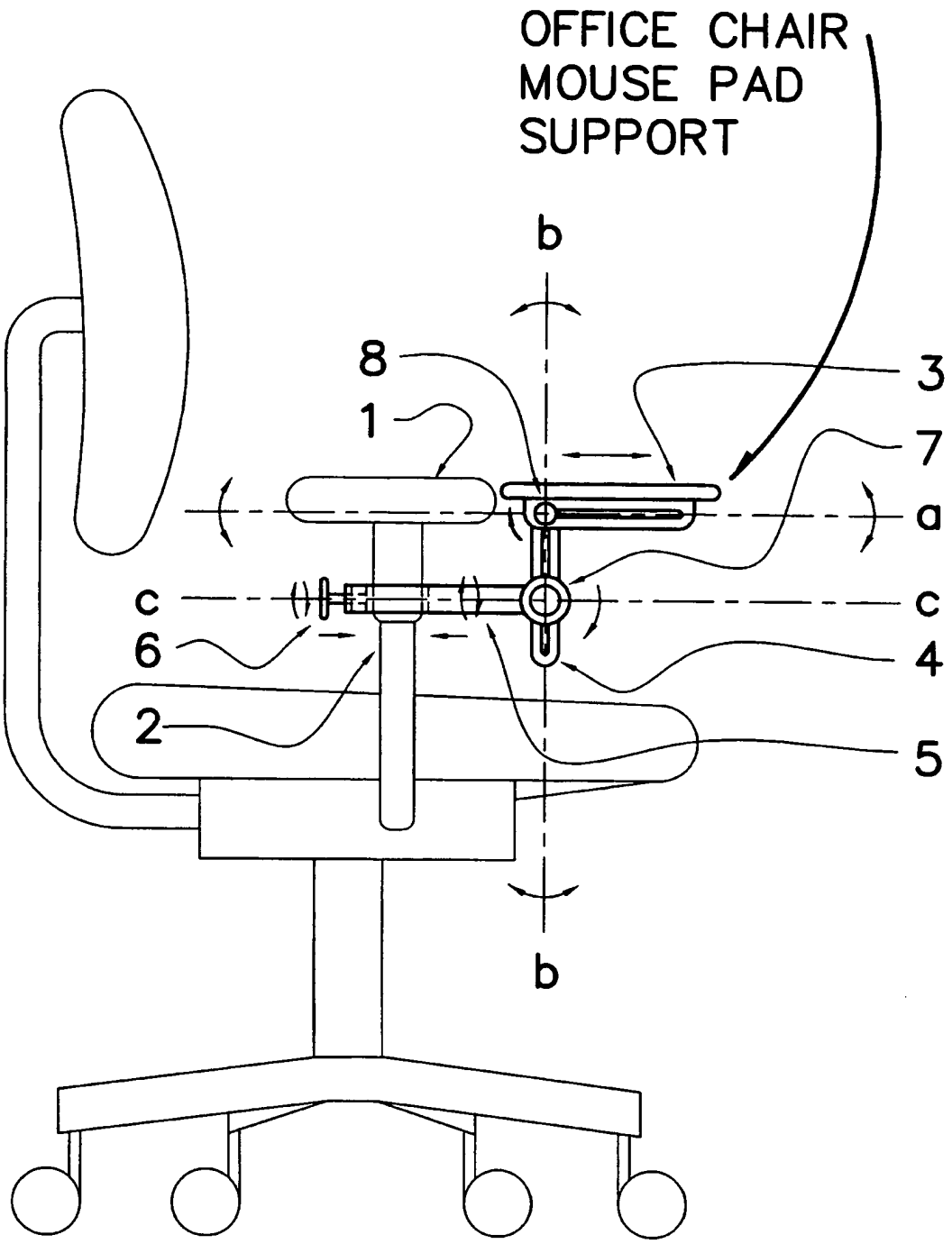
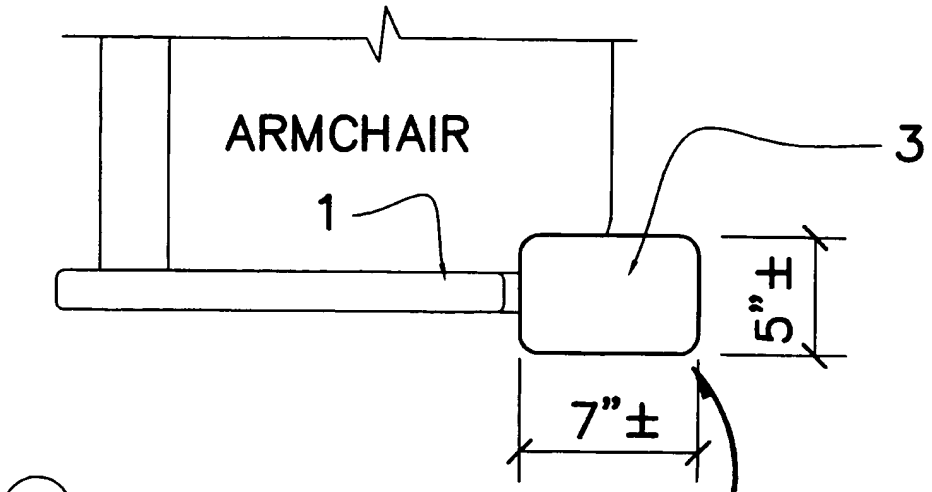
Title: Arm Chair Computer mouse pad
Field: Computer mouse/input device aid
Application No.: 2,302,111
Examiner: Yvan Guay

Abstract:

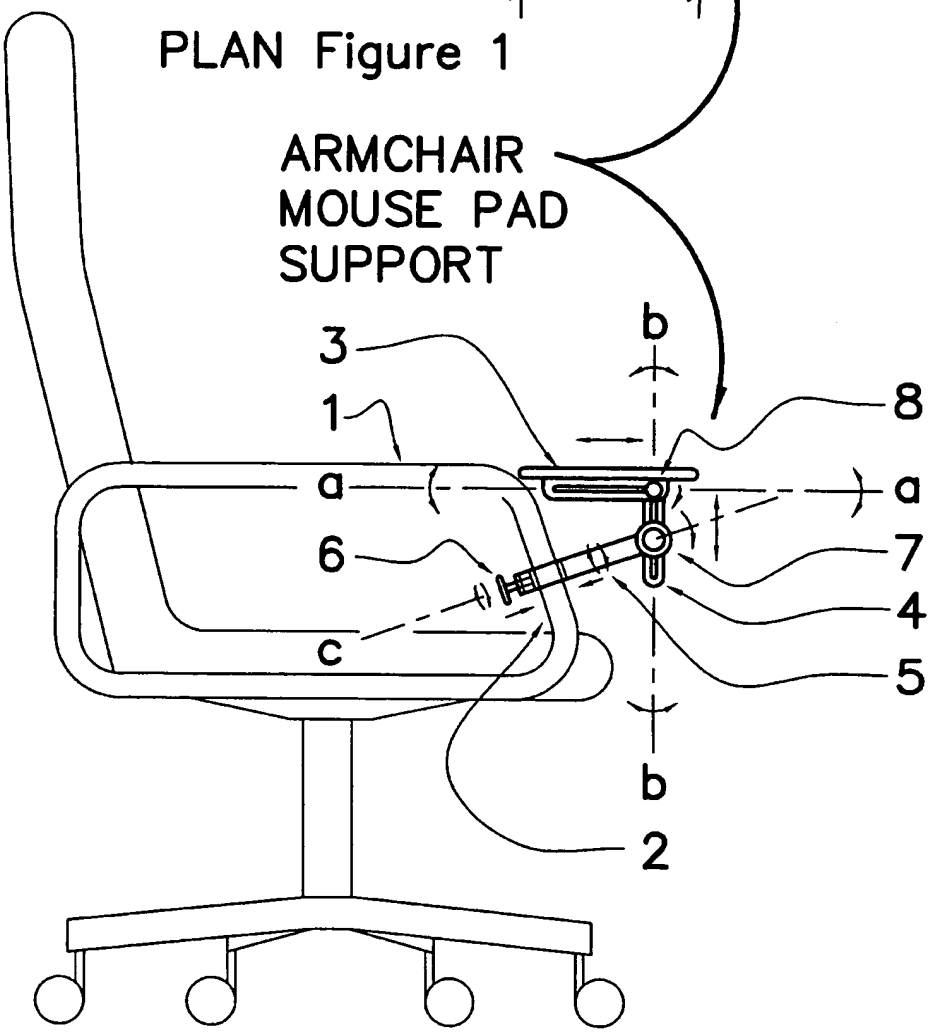
This invention improves the operation of a computer mouse (or input device) while sitting in an armchair, executive or secretary/computer type office chair. The invention attaches to the support of an armrest on an armchair and extends forward and up to a level surface where a computer mouse (or input device) and or pad for such devices can be placed. The device allows for adjustment & then locking the device in place in all axis (x, y, z or pitch, yoke and yaw). It also allows for the adjustment (& locking in place) of the level surface in terms of distance from the armrest of an armchair. Thus a stable and ergonomically correct working position, which can be easily customized to an individuals preferences, can be achieved for the operation of a computer mouse or input device, which is easily removable, simple to operate, rigid and durable, inexpensive to fabricate and assemble from readily available components and materials. The attachments methods contemplated, for the device to an armchair, the number and methods of pivot points contemplated, and the components contemplated ensure that the device can be easily and inexpensively sourced, fabricated, assembled, shipped, opened ready to be applied to most armchairs on either the left or right arms, adjusted, secured in a stable position free from play, and ready to use.



ELEVATION Figure 3



PLAN Figure 1



ELEVATION Figure 2